We are IntechOpen, the world's leading publisher of Open Access books Built by scientists, for scientists

4,800
Open access books available

122,000
International authors and editors

135M
Downloads

Our authors are among the

154
Countries delivered to

TOP 1%
most cited scientists

12.2%
Contributors from top 500 universities

WEB OF SCIENCE™

Selection of our books indexed in the Book Citation Index in Web of Science™ Core Collection (BKCI)

Interested in publishing with us?
Contact book.department@intechopen.com

Numbers displayed above are based on latest data collected.
For more information visit www.intechopen.com

1

Re-Engineering Open and Distance Learning Institutional Development for Knowledge Society in Africa

K. O. Ojokheta
Department of Adult Education, University of Ibadan, Nigeria

1. Introduction

In the contemporary world, the major task of all countries is to raise higher-level employment skills so as to sustain a globally competitive research base and to improve knowledge dissemination to the benefit of society. This was long observed by Drucker (1994) that "the knowledge society will inevitably become far more competitive than any society we have yet known for the simple reason that with knowledge being universally accessible, there are no excuses for non-performance. There will be no poor countries. There will only be ignorant countries". Therefore, if countries are to raise higher-level employment skills, it simply signifies that there is the need for substantial reforms in tertiary education policy since tertiary education is the major driver of economic competitiveness in an increasingly knowledge-driven global economy. These reforms in tertiary education policy must essentially concentrate on the production of more educated persons which, obviously, the conventional tertiary institutions, cannot achieved single-handed. Besides, an educated person, according to Drucker (1994) is "one who has learned to learn and will continue to learn throughout his or her life, especially in and out of the formal education system. This is continuing education. This is lifelong Learning". The implication of this is that a truly educated person is produced through a lifelong learning process and not through the formal education process. This is where open and distance learning becomes imperative. Drucker further observed:

> ... in the knowledge society, clearly more and more of knowledge, and especially of advanced knowledge, will be acquired well past the age of formal schooling, and increasingly, perhaps, in and through educational processes which do not centre on the traditional school, e.g., systematic continuing education offered at the place of employment.

Drucker's argument is simply that learning all the knowledge available to us today will not take place in the confines of the classrooms alone. This is why open and distance learning (ODL) continues to receive wider and greater recognition and acceptability as an important and standard component of educational delivery. In essence, if ODL is to play an important role in this ever increasing knowledge-driven global economy, its scope and importance have to change significantly. This paper is, therefore, written, as an awakening call for open and distance learning policy makers and practitioners in Africa to begin the re-engineering

process of open and distance learning institutional development to meet the challenges of the 21st century knowledge driven society.

2. Defining the knowledge society

Knowledge has been widely recognised by the economists as the most important factor of production in a "new economy". The production and utilisation of knowledge is, therefore, essential for development. In other words, knowledge is the most important factor of production and its growth is essential to propel a country into self-sustained growth. The information society as well as the knowledge society is seen as the successor to the industrial society. The term, information society was introduced in the early 1970s by Yojeni Masuda in a book: *The information society as post-industrial society*. In this book, he referred to information society as the highest stage of societal evolution, seen in analogy to biological evolution. However, similar concepts had already been discussed in the 1950s and 1960s. For example, Daniel Bell was the first person to put forward the concept of a "post-industrial society" in 1959. In 1979, Bell renamed the post-industrial society as information society. Similarly, behind Bell's contribution was the discovery that between 1909 and 1949, in growth rates among the non-agricultural sector, skills contributed 87.5% towards growth, while labour and capital contributed a mere 12.5%.

In the early 1990s, the Institute of Information Studies made up of the Aspen Institute and other agencies in the United States published an almanac in 1993-1994. Its main title was the *Knowledge-based economy: the nature of the information age in the 21st century.* The United Nation endorsed the term immediately afterwards, and gave it a clearer definition in 1996. It defined a knowledge-based economy as an economy whose most important elements are the possession, control, production, and utility of knowledge and intellectual resources. The knowledge society produces commodities of high knowledge value. Similarly, the term "knowledge-value society" was introduced by Taichi Sakaiya (1991, 2001). The term was defined as "a society where the value of knowledge is the primary source of economic growth and corporate profits". Ever since then, most countries, especially in the developing countries, where knowledge gap (K-Gap) tremendously exists, have been striving not only to reduce this gap but also embarking on an ambitious plan to use knowledge as a base for economic development. World Bank (1999) observed that education, especially tertiary education, remains one of the crucial variables for achieving a knowledge society. This is because tertiary education contributes to social and economic development through four major missions:

- The formation of human capital (primarily through teaching),
- The building of knowledge bases (primarily thro ugh research and knowledge development),
- The dissemination and use of knowledge (primarily through interactions with knowledge users), and
- The maintenance of knowledge (inter-generational storage and transmission of knowledge).

Tertiary education, these days, is much more diversified than in the time past when it was more commonly referred to as higher education symbolised by the universities. Today, tertiary education encompasses new types of institutions such as polytechnics, university colleges, technological institutes, and more recently, open and distance learning. Suffice it to

say that open and distance learning, as a component of tertiary education, is much more crucial to the realization of knowledge society. If this is to be accomplished, it simply connotes that open and distance learning must be re-engineered, in its institutional development, to meet the challenges of the 21st century. This paper thoroughly discusses the major characteristics that a 21st –century distance and open learning institutions are expected to possess in a knowledge-based society.

3. The growing focus of open and distance learning

Sparked by new technologies, particularly the internet, distance educational delivery is undergoing a radical transformation that is nothing less than a new educational revolution. This revolution is undoubtedly taken distance education delivery to higher height that was previously unimagined. The 21st-century distance and open learning institution that should emerge will in many ways be the polar opposite of the institutions that emerged in the 20th century.

It is well established that many factors are driving change; however, none of these is more important than the rise of internet technologies. The Net has already become advanced with revolutionary consequences, most of which are now begun to be felt. The Net instantaneously gives everyone the opportunity and ability to access a mind-boggling array of information from anywhere. Instead of seeping out, over months or years, ideas can be got around the world in the blink of an eye. This simply means that the 21st-century distance and open learning institution must adapt itself to management via the web. This must be predicated on constant change, not stability; organized around networks, not rigid hierarchies; built on shifting partnerships and alliances, not self-sufficiency; and constructed on technological advantages, not bricks and mortars. In other words, the 21st-century distance and open learning institution is far more likely to look like a web: a flat, intricately woven form that links students, tutors, employees, policy makers, practitioners, managers, partners of distance and open learning in various collaborations. They will grow more and more interdependent and managing this intricate network will be as important as managing internal operations.

4. The need for reengineering distance and open learning institutions for knowledge society

More recently, most organizations have moved beyond total quality management (TQM) programmes to a more comprehensive approach to redesigning organizational processes called re-engineering. According to Hammer and Champy (1993), "re-engineering is the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in cost, quality, and speed". Therefore, if distance and open learning institutions in Africa must achieve dramatic improvements in cost, quality, and speed in their administrative and academic processes, they must embark on radical redesign of these processes. In the administrative processes, open and distance learning institutions in Africa must begin to re-align with the dictates and expectations of 21st century organization. Similarly, in the academic processes, open and distance learning institutions must begin to have new perception of learning in line with the constructivist perspective rather the objectivist perspective where learners are not involved in the real act of learning but are given ready view of social reality by the tutors.

5. Reengineering in the administrative processes of ODL

As canvasses above, reengineering in the administrative processes of ODL involves moving the operations of ODL institutions from the dictates of 20th century organization to the 21st century organization. The detailed examination of characteristics of 20th and 21th century's Distance Education Institutions in Africa becomes imperative here.

Distance education emerged in Nigeria, and most parts of Africa, as an educational opportunity embraced by knowledge-driven few who were driven by necessity. The history of distance education, especially in Nigeria dates back to the practice of correspondence education as a means of preparing candidates for the General Certificate in Education (GCE), a prerequisite for the London Matriculation Examination. This practice was described by Bell and Tight (1999) and Alan Tait (2003) thus:

> …the University of London has been termed the first "Open University" because of this move, students all the world, but principally within the British Empire and its dominions, were soon looking for tutorial support to supplement the bare syllabus they received on registration wherever they lived.

The characteristics of distance education institutions at emergence in Arica in the 20th century are described in Table 1:

Organization	**Pyramid**
Focus	**Internal**
Style	**Structured**
Source of strength	**Stability**
Structure	**Self-sufficiency**
Resources	**Atoms-physical assets**
Operations	**Vertical integration**
Product	**Mass production**
Reach	**Domestic**
Financials	**Quarterly**
Inventories	**Months**
Strategy	**Top down**
Leadership	**Dogmatic**
Workers	**Employees**
Job Expectations	**Security**
Motivation	**To compete**
Improvements	**Incremental**
Quality	**Affordable best**

Table 1. Characteristics of the 20th Century Distance and Open Learning Institution in Africa.

This table provides 18 parameter descriptions of the characteristics of distance and opens learning institutions in Africa at emergence. The organization of distance and open learning institutions in the 20th-century is structured in a pyramidal form showing the rigid hierarchy of authority and responsibility which promotes dependency phenomenon. At the apex of the pyramid is the management team comprising policy planners and makers. This is

followed by the course designers, developers, and instructors. At the bottom of the pyramid are the distance learners who are completely or partially separated from the institution and the tutors. The learners, to a greater extent, depend on the institution and the tutors to achieve success in their learning. Thus, the focus of these institutions is largely internal. This is because the sophisticated multimedia technologies, which could have extended the focus, were practically minimal and largely limited to correspondence.

The 21st century open and distance learning institutions in Africa are expected to possess the characteristics of a knowledge driven economy. These characteristics are itemized and thoroughly discussed below:

Organization	**Web/Network**
Focus	**External**
Style	**Flexible**
Source of strength	**Change**
Structure	**Interdependencies**
Resources	**Bits-information**
Operations	**Virtual integration**
Product	**Mass customization**
Reach	**Global**
Financials	**Real time**
Inventories	**Hours**
Strategy	**Bottom up**
Leadership	**Inspirational**
Workers	**Employees & free agents**
Job Expectations	**Personal growth**
Motivation	**To build**
Improvements	**Revolutionary**
Quality	**No compromise**

Table 2. Expected Characteristics of the 21th Century Distance and Open Learning Institutions.

Table 2 equally provides 18 parameter descriptions of the expected characteristics of the 21st century open and distance learning institutions in Africa. The organization of distance and open learning institutions in the 21-century must be structured in a web or network which gives everyone in the institution, the ability to access a mind-boggling array of information instantaneously from anywhere. Therefore, the focus of 21st century ODL institution will no longer be internal but external. Similarly, the style of administration will no longer be structured but flexible with change as the source of strength of the institutions. The 21st century ODL institutions are expected to display interdependencies in their structure rather than that of self-sufficiency. The institutions resources will no longer be physical assets but information assets with virtual integration rather than vertical integration in their operations. The products of these institutions will no longer be mass production but mass customization while the institutional reach will be transformed from domestic to global. The financial structure of the institutions will no longer be quarterly but in real time. The monthly inventory has to change for the hour inventory. The strategy of such institutions

will have to change from top down to bottom-up; so also, the leadership pattern which must also change from dogmatic pattern to inspirational pattern. The job expectation of workers of the 21st century ODL institutions will have to change from that of security to personal growth; so also the philosophy of motivation of such institutions which should now be: to build rather than to compete. ODL institutions in a knowledge-based society must aim at revolutionary improvements rather than incremental improvements. Lastly, the philosophy of quality of ODL institutions of this age must be- no compromise and not affordable best has championed by the 20th century ODL institutions.

6. Reengineering in the academic processes of ODL

The operational modalities of the 20th century of open and distance learning institutions in Africa are, to large extent, based on the specifications of the traditional Objective-Rational approach to instructional design where knowledge and truth are perceived to exist outside the mind of the individual and, therefore, objective. In other word, learners are told the world and are expected to replicate its content and structure in their thinking. Knowledge, in line with this approach, is taught to the learners as finished product of other people's experience as they are not allowed to realize that they too can produce knowledge from processing their own experience. Thus, knowledge is perceived as a possession of other people's ideas without taken into consideration the experiences of the learners. Hence, it is the experiences of others that matter and not the experiences of the learners who are supposed to be at the centre of the teaching and learning activities.

However, recent events in the contemporary globalized world (especially in the massive revolution of information and communication technology, which has accelerated the internationalization of open and distance learning practice, and the systematic movement of this mode of learning from industrialized model to post-industrialized) has necessitated the infusion of the principles of constructivism in instructional design in open and distance learning. Constructivism is a fundamental departure in thought, from that of the traditional objective-rational approach, about the nature of knowing, learning, and teaching. In terms of learning, the constructivist perspective describes learning as a change in meaning constructed from experience (Newby, Stepich, Lehman, and Russell (1996). The constructivists believe that knowledge and truth are constructed by people and do not exist outside the human mind (Duffy and Jonassen,1991). Thus, the constructivists' view of learning differs radically from that of the objectivists in the sense that they perceive learning to be personal and not purely objective (Bonder, 1986). Von Glaserfeld (1984) submitted that through constructivism, learners construct understanding. They do not simply mirror and reflect what they are told or what they read. Learners look for meaning and will try to find regularity and order in the events of the world, even in the absence of full or complete information. In essence, the construction of knowledge is the major emphasis of constructivism.

In terms of learning process, the central tenet of constructivism is that learning is an active process. Information may be imposed, but not understanding because it must come from within. Woolfolk (1993:485) described the constructivist view of the learning process as follows:

> ---the key idea is that students actively construct their own knowledge: the mind of the student mediates input from the outside world to determine what the student will learn. Learning is active mental work, not passive reception of teaching.

Jonassen, (1991) submitted that during the process of learning in constructivist approach, learners may conceive of the external reality somewhat differently, based on their unique set of experiences with the world and their beliefs about them. However, learners may discuss their understandings with others and thus develop shared understandings (Cognition and Technology Group, 1991). While different learners may arrive at different answers, it is not a matter of 'anything goes' (Spiro, R.J., Coulson, R.L., Feltovich, P.J. and Anderson, D. K. (1988); Spiro, R.J., Feltovich, P.J., Jacobson, M.J. and Coulson, R.L. (1991). Learners must be able to justify their position to establish its validity (Cognition and Technology Group, 1991). Even though the learners are central to the learning process, as emphasized by the Piagetian individualistic approach to constructivism, it is collaboration among learners that makes constructivism unique because it encourages the construction of a social context in which collaboration creates a sense of community, and that teachers and students are active participants in the learning process.

In terms of goal or stimulus for learning, it is the problematic situation (Dewey, 1938) or learners 'puzzlement' (Savery and Duffy, 1995) that serves as stimulus and organizer for learning. Hence, according to the constructivist perspective, learning is determined by the complex interplay among learners' existing knowledge, the social context, and the problem to be solved. Instruction, in the constructivist view, should be designed to provide learners with a collaborative situation in which they have both the means and the opportunity to construct 'new and situationally-specific understandings by assembling prior knowledge from diverse sources' (Ertmer and Newby, 1993:63).

The two major characteristics central to constructivist descriptions of the learning process, according to Brooks and Brooks, 1993; Cognition and Technology Group, 1993; Brown and Holum, 1991; Honebein, Duffy, and Fishman, 1993, were:

- Good Problems - Constructivist instruction asks learners to use their knowledge to solve problems that are meaningful and realistically complex. The problems provide the context for the learners to apply their knowledge and to take ownership of their learning. Good problems are required to stimulate the exploration and reflection necessary for knowledge construction. According to Brooks and Brooks (1993), a good problem is one that:
  - Requires students to make and test a prediction.
  - Can be solved with inexpensive equipment.
  - Is realistically complex.
  - Benefits from group effort.
  - Is seen as relevant and interesting by students.
- Collaboration - The constructivist approach supports that learners learn through interaction with others. Learners work together as peers, applying their combined knowledge to the solution of the problem. The dialogue that results from this combined effort provides learners with the opportunity to test and refine their understanding in an ongoing process.

The role of the teacher during instruction, in constructivist view, is that instructional intervention should not only match, but also accelerate students' cognitive development. According to Copley (1972), constructivism requires a teacher who acts as a facilitator 'whose main function is to help students become active participants in their learning and make meaningful connections between prior knowledge, and the processes involved in learning'.

Chung (1991) has described the type and characteristics of the learning environment favoured by the constructivists as follows:

- Shared knowledge among teachers and students;
- Shared authority and responsibility among teachers and students;
- The teacher's new role as guide in instruction;
- Heterogeneous and small groupings of students.

In line with Chung's description, the teacher is thus seen as a guide instead of an expert. Collins, Brown, and Holum (1991) and Rogoff (1990) have likened constructivism instruction to an apprenticeship in which teachers participate with students in the solution of meaningful and realistic problems. Thus, the teacher serves as models and guides showing students how to reflect on their evolving knowledge and providing direction when the students are having difficulty. Learning is shared, and responsibility for the instruction is equally shared. Newby et.al. (1996) submitted that the amount of guidance provided by the teacher will depend on the knowledge level and experience of the students.

From the description of the ideas of constructivism, Brooks and Brooks (1993) have summarized the characteristics of a constructivist teacher as someone who will:

- Encourage and accept student autonomy and initiative.
- Use a wide variety of materials, including raw data, primary sources, and interactive materials and encourage students to use them.
- Inquire about students' understandings of concepts before sharing his/her own understanding of those concepts.
- Encourage students to engage in dialogue with the teachers and with one another.
- Encourage students, inquiry by asking thoughtful, open-ended questions and encourage students to ask questions from each other and seek elaboration of students' initial responses.
- Engage students in experiences that show contradictions to initial understandings and then encourage discussion.
- Provide time for students to construct relationships and create metaphors.
- Assess students' understanding through application and performance of open-structured tasks.

Thus, from the constructivist perspective, the primary responsibility of the teacher is to create and maintain a collaborative problem-solving environment, where students are allowed to construct their own knowledge, and the teacher acts as a facilitator and guide. The pedagogical effectiveness of constructivism in instructional design made Reigeluth (1989) to argue for a 'new mindset, in the translation of the philosophy of constructivism into actual practice.

One of the most appropriate strategy for building constructivist learning environment is to create a collaborative learning environment which does not just entail sharing a workload or coming to a consensus. Rather, it is to allow learners to develop, compare, and understand multiple perspectives on an issue. According to Bednar, Cunningham, Duffy, and Perry J.D. (1992), 'it is the rigorous process of developing and evaluating the arguments that is the goal in collaborative learning". Hence, knowledge, in the constructivists view, is the construction of the learners and the construction of other people's view for the learners.

7. Recommendations

The following recommendations are suggested if open and distance learning institutions in Africa are to be properly re-engineered for knowledge society:

1. Open and distance learning institutions must be revolutionized in line with the 18 parameters description of the characteristics of the 21st century organizations.
2. Instructional dissemination in open and distance learning programmes must be designed in line with the principles of constructivism.
3. Tutors in open and distance learning programme must be re-oriented to become constructivist tutors rather than objectivist tutors.
4. Open and distance learning institutions must expand their scope of academic activities in order to reduce the knowledge gap (K-Gap) which exists in Africa.
5. Open and distance learning institutions must design strategies and create avenues through which distance learning students can make use of knowledge acquired as the base for self-sustained growth.

8. Conclusion

This paper has established the fact that Open and distance learning remains an important avenue for raising the higher-level employment skills of African countries in order to sustain a competitive research base and improve knowledge dissemination to the benefit of African societies. However, if ODL is to continue to be one of the major drivers of economic competitiveness in an increasingly knowledge-driven global economy, then there is the need for substantial reforms or re-engineering of its institutional development along the lines of administrative and academic processes. This is what this paper has been able to achieve.

9. References

Bednar, A.K., Cunningham, D., Duffy, T.M.& Perry J.D. (1992). Theory into practice: How do we link? In T.M. Duffy and D.H. Jonassen (Eds.) *Constructivism and the technology of instruction: a conversation*, Hillsdale, HJ: Lawrence Erlbaum Associates, 17-35.

Bell,D. (1976). The coming of the post-industrialized society: A venture in social forecasting. Basic Books.

Bonder, G.M. (1986). Constructivism: A Theory of Knowledge, *Journal of Chemical Education,* 63, 873-878.

Brooks, J.G. and Brooks, M.G. (1993). *In search of understanding: the case for constructivist classrooms,* Alexandria, VA: American Society for Curriculum Development.

Brown, J.S., Collins, A. And Duguid P. (1989). Situated Cognition and the culture of learning. *Educational Researcher*, 18 (1), 32-41.

Cascio, W. F. (2003). Managing Human Resources: Productivity, Quality of Work Life, Profits. New York: McGraw-Hill Higher Education.

Chung J. (1991). Collaborative learning strategies: the design of instructional environments for the emerging new school. *Educational Technology*, 31 (6), 15-22.

Cognition and Technology Group at Vanderblit (1991). Some thoughts about constructivism and instructional design. In T.M. Duffy and D.H. Jonassen (Eds.) Constructivism and the technology of instruction: a conversation. Hillsdale, NJ: Lawrence Erlbaum Associates, 115-119.

Cognition and Technology Group at Vanderbilt (1993). Designing learning environments that support thinking: the Jasper series as a case-study. In T.M. Duffy, J. Lowyeh, and D.H. Jonassen (Eds.) *Designing environments for constructive learning,* Berlin: Springer-Verlag, 9-36.

Collins, A., Brown, J.S. and Holum, A. (1991). Cognitive apprenticeship: making thinking visible. *American Educator,* 15 (3), 6-11, 38-46.

Copley, J. (1992). The integration of teacher education and technology: a constructivist model. In D. Carey, R. Carey, D. Willis, and J. Willis (Eds.), *Technology and Teacher Education,* Charlottesville, VA: AACE, 681.

Dewey, J. (1938). *Logic: the theory of inquir*y, New York: Holt and Co.

Drucker, P.F. (1994). Knowledge, work and society: The social transformation of this century. The Edwin L. Goldkin Lecture, Harvard University's John F. Kennedy School of Government, http://www.ksg.harvard.edu/ifactory/ksgpress/www/ksgnews/transcripts/drucklec.html. 3/25/2005.

Duffy, T.M. and Jonassen, D.H. (1991). New implications for instructional technology? *Educational Technology,* 31 (3), 7-12.

Ertmer, P.A. and Newby, T.J. (1993). Behaviorism, cognitivism, constructivism: comparing critical features from an instructional design perspective. *Performance Improvement Quaterly,* 6 (4), 50-72.

Hammer, M., & Champy, J. (1993). *Reengineering the corporation.* New York: Harper Business.

Honebein, P. C., Duffy, T.M. and Fishman, B.J. (1993). Constuctivism and the design of learning environments: context and authentic activities for learning. In T. M. Duffy, J. Jonassen, D.H. (1991). Objectivism versus constructivism: do we need a new philosophical paradigm? *Journal of Educational Research,* 39 (3), 5-14.

Masuda, Y. (1980). The information society as post-industrial society. Institute for the Information Society. Tokyo.

Newby, T.J., Stepich, D.A., Lehman, J.D. and Russell, J.D. (1996). *Instructional technology for teaching and learning: designing instruction, integrating computers, and using media,* NJ: Prentice Hall.

Reigeluth, C.M. (1989). Educational technology at the crossroads: new mindsets and new directions. *Educational Technology Research and development,* 37 (1), 1042-1629.

Rogoff, B. (1990). *Apprenticeship in thinking: cognitive development in social context,* New York: Oxford University Press.

Sakaiya, T. (1991). The knowledge-value revolution or a history of the future. New York.

Sakaiya, T. (2000). The knowledge-value revolution and the internet fair 2001 Japan. Speech at OECD Forum, 27 June.

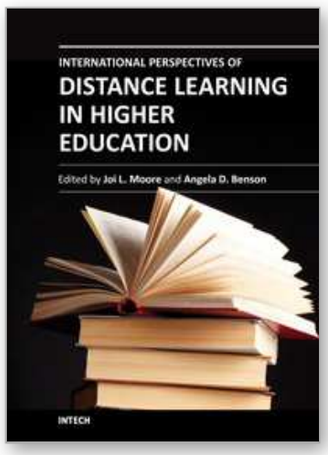
Savery, J.R. and T.M. Duffy (1995). Problem based learning: an instructional model and its constructivist framework. *Educational Technology*, 35 (5), 31-38.

Spiro, R.J., Coulson, R.L., Feltovich, P.J. and Anderson, D. K. (1988). *Cognitive flexibility theory: advanced knowledge acquisition in ill-structured domains* (Technical Report no.441), Champaign, IL: University of Illinois, Center for the Study of Reading.

Spiro, R.J., Feltovich, P.J., Jacobson, M.J. and Coulson, R.L. (1991). Knowledge representation, content specification, and the development of skill in situation-specific knowledge assembly: some constructivist issues as they relate to cognitive flexibility theory and hypertext. *Educational Technology,* 31 (5), 22-25.

Von Glaserfeld, E. (1984). Radical constructivism. In P. Watzlawick (Ed.) *The invented reality,* Cambridge, MA: Harvard University Press, 17-40.

Woolfolk, A.E. (1993). *Educational psychology.* Bosten: Allyn and Bacon.



International Perspectives of Distance Learning in Higher Education

Edited by Dr. Joi L. Moore

ISBN 978-953-51-0330-1
Hard cover, 332 pages
Publisher InTech
Published online 16, March, 2012
Published in print edition March, 2012

This book, written by authors representing 12 countries and five continents, is a collection of international perspectives on distance learning and distance learning implementations in higher education. The perspectives are presented in the form of practical case studies of distance learning implementations, research studies on teaching and learning in distance learning environments, and conceptual and theoretical frameworks for designing and developing distance learning tools, courses and programs. The book will appeal to distance learning practitioners, researchers, and higher education administrators. To address the different needs and interests of audience members, the book is organized into five sections: Distance Education Management, Distance Education and Teacher Development, Distance Learning Pedagogy, Distance Learning Students, and Distance Learning Educational Tools.

INTECH
open science | open minds

InTech Europe
University Campus STeP Ri
Slavka Krautzeka 83/A
51000 Rijeka, Croatia
Phone: +385 (51) 770 447
Fax: +385 (51) 686 166
www.intechopen.com

InTech China
Unit 405, Office Block, Hotel Equatorial Shanghai
No.65, Yan An Road (West), Shanghai, 200040, China
中国上海市延安西路65号上海国际贵都大饭店办公楼405单元
Phone: +86-21-62489820
Fax: +86-21-62489821

IntechOpen